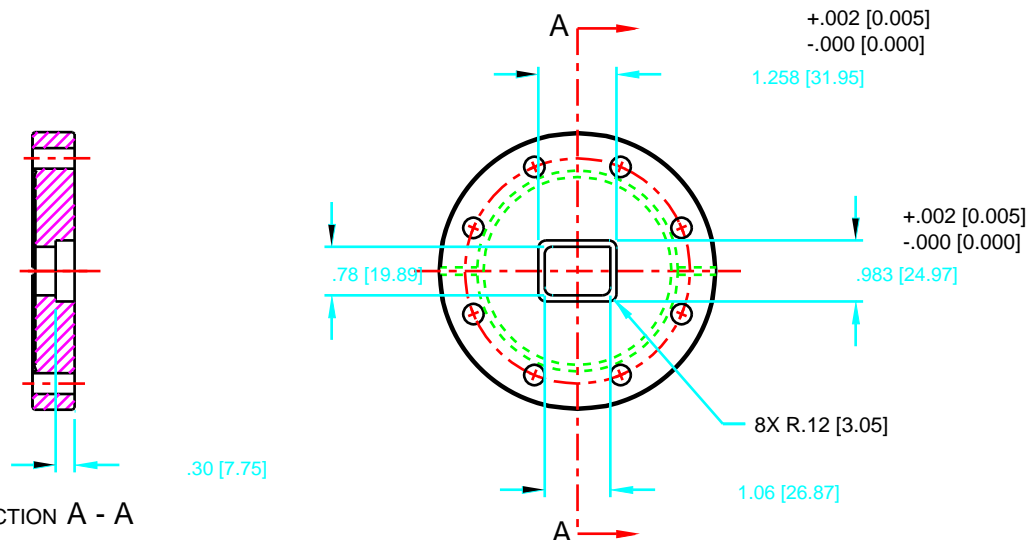


NOTES:

1. MAKE FROM MDC'S 4 1/2 O.D. VACUUM FLANGE CATALOG # 110018
2. THIS IS A ULTRA- HIGH VACUUM COMPONENT (UHV)
3. WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
 - A) CIMCOOL 5 STAR 49
 - B) TRIM SOL
4. FINISHING: WHEN MACHINING VACUUM PARTS USE OF ABRASIVE PAPER OR SANDING DISCS, BUFFING OR POLISHING COMPOUNDS, OR RESIN-BONDED GRINDING WHEELS IS PROHIBITED
5. CLEANING: THE COMPONENT MUST BE CLEANED SUCH THAT A UHV PRESSURE OF 1×10^{-9} TORR CAN BE ACHIEVED
6. HANDLING: THE COMPONENTS SHALL BE HANDLED WITH WHITE SILK GLOVES AND WRAPPED WITH ALUMINUM FOIL TYPE DRY ANNEAL AND UNDER CLEAN ROOM CONDITIONS
7. DIMENSIONS IN [] ARE MILLIMETERS AND FOR REF. ONLY

SYN	CHANGE DESCRIPTION	BY	CHKD	DATE

SECTION A - A



ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION		MATERIAL / SPEC	QTY
PARTS LIST					
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES		LOG NUMBER		THIS DRAWING IS THE PROPERTY OF	
TOLERANCES		M7200002-00		ARGONNE NATIONAL LABORATORY	
DECIMALS	ANGULAR	DRAWN BY	DATE	CHIEF DESIGN ENGINEER	DATE
.X ± .1 [2.5]	± 0°30'	MUSCIA	4/7/98	D. SHU	5/2/98
.XX ± .01 [0.25]		CHECKED BY	DATE	GP LEADER	DATE
.XXX ± .005 [0.13]		J. CHANG	4/29/98	T.M. KUZAY	5/4/98
SURFACE ROUGHNESS 125 ✓		DESIGNER	DATE	PROJECT MGR.	DATE
REMOVE ALL BURRS AND BREAK SHARP EDGES .03 MAX.		SHU/MUSCIA	4/7/98		
SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1		RESPONSIBLE ENGINEER	DATE	APPROVED/RELEASED	DATE
DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ANSI Y14.5		D. SHU	5/2/98		
DO NOT SCALE DRAWING		MATERIAL		SCALE	SIZE
		SEE NOTE#1		HALF	B
				SHEET 1 of 1	DRAWING NUMBER
					M7-200002-00

ADVANCED PHOTON SOURCE
M7-20 APS 4-ID FRONT END
4 TH FIXED MASK LEFT
END 4 1/2" O.D. NONROTATABLE
VACUUM FLANGE